



ID 118: Tamarind seed extract enhances epidermal wound healing

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Traditional healing power of tamarind fruits and the established antioxidant activity of the seeds drive the present study. Present study was done to evaluate the efficiency of wound healing. 10 μ l of 5 μ g/ml of extract was administered to female ICR-type mice. Surface area of the wound was measured using Adobe [®]Photoshop C3 Extended version and the percentage of reduction was calculated. Different types of solvent namely Phosphate Buffer Saline (PBS), water, methanol and ethanol were used as the extraction solvents. PBS extract (PE) treatment induced complete wound healing in shortest period (10 days); water extract treatment (WE), methanol extract treatment (ME) and Solcoseryl ointment in 11 days and sterile deionized water in 14 days. Phytochemical screening and Bradford method were performed to detect chemical compound qualitative and quantitatively. Alkaloid and saponin were tested positive in all samples. Only methanol and ethanol extract gave positive result on flavonoid testing. Tannin was detected in all samples except PBS extract. The effective yield of ethanol extraction was shown in the study.

ID 130: Isolation of antibacterial compounds from dichloromethane fraction of Malaysian sponges *Neopetrosia exigua*

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This study was carried out to isolate the active antibacterial compounds from marine sponge *Neopetrosia exigua*. Using disc diffusion method, methanol extract of *N. exigua* showed significant antibacterial activity (The inhibition zone against *Staphylococcus aureus* was 19.5 mm). Sequentially, liquid-liquid extraction was performed using solvents with different polarity (*n*-hexane, carbon tetrachloride, dichloromethane, *n*-butanol and water) in order to isolate the active antibacterial compounds. Based on the biological guided fractionation results, dichloromethane and *n*-butanol fractions showed the highest antimicrobial activity. Purification of dichloromethane fraction was done by using SephadexLH-20, normal phase column chromatography and reverse phase column chromatography to yield three compounds (1-3). All compounds were tested for their antibacterial activity against *Staphylococcus aureus*. The results showed that compounds 3 exhibited significant antibacterial activity. Research is still in progress to elucidate the structures of the isolated compounds.